

FILE 'CAPLUS, WPIDS, MEDLINE, FSTA' ENTERED AT 18:09:02 ON 21 FEB 2004  
ACTIVATE OMEGA36RATIO/A

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L1 ( 3186)SEA ((N6 OR N 6) (3A) (FATTY ACID#)) AND ((N3 OR N 3) (3A) (FATT  
L2 ( 1816)SEA ((OMEGA 6) (3A) (FATTY ACID#)) AND ((OMEGA 3) (3A) (FATTY A  
L3 ( 4592)SEA L1 OR L2  
L4 ( 5371)SEA (N6 OR N 6 OR N3 OR N 3 OR OMEGA 6 OR OMEGA 3) (10A) (RATIO  
L5 ( 1551)SEA L3 AND L4  
L6 ( 10)SEA L5 AND (SEPSIS OR SEPTIC OR SHOCK#)  
L7 ( 1541)SEA L5 NOT L6  
L8 ( 13)SEA L7 AND (MCT OR MEDIUM CHAIN TRIGLYCERIDE#)  
L9 1528 SEA L7 NOT L8  
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L10 33 S L9 AND (TOTAL ENERGY OR TOTAL CALOR?)  
L11 27 DUP REM L10 (6 DUPLICATES REMOVED)

L1 ( 3186)SEA ((N6 OR N 6) (3A) (FATTY ACID#)) AND ((N3 OR N 3) (3A)  
(FATTY ACID#))  
L2 ( 1816)SEA ((OMEGA 6) (3A) (FATTY ACID#)) AND ((OMEGA 3) (3A) (FATTY  
ACID#))  
L3 ( 4592)SEA L1 OR L2  
L4 ( 5371)SEA (N6 OR N 6 OR N3 OR N 3 OR OMEGA 6 OR OMEGA 3) (10A)  
(RATIO OR RATIOS OR PROPORTION? OR PERCENT?)  
L5 ( 1551)SEA L3 AND L4  
L6 ( 10)SEA L5 AND (SEPSIS OR SEPTIC OR SHOCK#)  
L7 ( 1541)SEA L5 NOT L6  
L8 ( 13)SEA L7 AND (MCT OR MEDIUM CHAIN TRIGLYCERIDE#)  
L9 1528 SEA L7 NOT L8  
L10 33 SEA L9 AND (TOTAL ENERGY OR TOTAL CALOR?)  
L11 27 DUP REM L10 (6 DUPLICATES REMOVED)

All Reviewed  
Not that good

=> d 1-27 bib ab

L11 ANSWER 1 OF 27 MEDLINE on STN  
AN 2004064810 IN-PROCESS  
DN PubMed ID: 14767370  
TI The role of nutrition in the prevention of breast cancer.  
AU Duncan Alison M  
SO AACN clinical issues, (2004 Jan-Mar) 15 (1) 119-35.  
Journal code: 9508191. ISSN: 1079-0713.  
CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS IN-DATA-REVIEW; IN-PROCESS; NONINDEXED; Nursing Journals  
ED Entered STN: 20040210  
Last Updated on STN: 20040210  
AB SUMMARY: Nutrition has been widely studied as a leading environmental factor in the prevention of breast cancer (BC). Despite the challenges in relating consumption of specific nutrients to BC risk, particularly in the context of a total diet, many investigators have contributed valuable information. Dietary fat has received the most attention and also created the most uncertainty. Specific types of fat, particularly monounsaturated fat and the **ratio of omega-3 to omega-6 fatty acids**, demonstrate more potential to influence BC risk. A wide variety of other dietary factors have been studied in relation to BC including **total energy**, dietary fiber, alcohol, micronutrients, phytochemicals, specific foods, and food constituents. Results of epidemiological studies relating consumption of these dietary factors to BC have increased the knowledge base that provides rationale for various nutritional strategies to contribute to BC prevention.

L11 ANSWER 2 OF 27 CAPLUS COPYRIGHT 2004 ACS on STN  
AN 2003:1014266 CAPLUS  
TI **Omega-6/omega-3 fatty acid ratio**: the Israeli paradox  
AU Dubnov, Gal; Berry, Elliot M.  
CS Department of Human Nutrition and Metabolism, Hadassah Medical School, Hebrew University, Jerusalem, Israel  
SO World Review of Nutrition and Dietetics (2003), 92(Omega-6/Omega-3 Essential Fatty Acid Ratio: The Scientific Evidence), 81-91  
CODEN: WRNDAT; ISSN: 0084-2230  
PB S. Karger AG  
DT Journal; General Review  
LA English  
AB The Israeli diet is low in **total calories**, in total and animal fat, and high in hypolipidemic omega-6 fatty acids as compared with other western countries. Therefore, in Israel, a low prevalence of coronary artery disease and other dietary fat-related disease, like diabetes and several types of cancer, may be anticipated. However, the prevalence of CAD, diabetes mellitus and cancer in Israel is comparable with other western countries. This observation is termed the Israeli paradox, as it appears that high omega-6 intake, along with high omega-6/omega-3 ratio, counteract the expected health benefits of the other components of the Israeli diet.

L11 ANSWER 3 OF 27 CAPLUS COPYRIGHT 2004 ACS on STN  
AN 2002:157505 CAPLUS  
DN 136:183158  
TI Nutritional composition and method for improving protein deposition  
IN Fuchs, Eileen C.; Garcia-Rodenas, Clara L.; Guigoz, Yves; Leathwood, Peter; Reiffers-Magnani, Kristel; Mallangi, Chandrasekhara R.; Turini, Marco; Anantharaman, Helen Gillian; Beaufrere, Bernard; Dangin, Martial; Ballevre, Olivier  
PA Societe des Produits Nestle S. A., Switz.; Institut National de la

Recherche Agronomique  
SO PCT Int. Appl., 24 pp.  
CODEN: PIXXD2  
DT Patent  
LA English  
FAN.CNT 2

|      | PATENT NO.   | KIND   | DATE     | APPLICATION NO. | DATE     |
|------|--|--|----------|-----------------|----------|
| PI   | WO 2002015720  | A2   | 20020228 | WO 2001-EP9579  | 20010820 |
|      | WO 2002015720  | A3   | 20020530 |                 |          |
|      | W:   | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM |          |                 |          |
|      | RW:  | GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG   |          |                 |          |
|      | US 2002044988  | A1   | 20020418 | US 2001-821498  | 20010329 |
|      | US 2002044957  | A1   | 20020418 | US 2001-821499  | 20010329 |
|      | US 6592863   | B2   | 20030715 |                 |          |
|      | AU 2001091777  | A5   | 20020304 | AU 2001-91777   | 20010820 |
|      | EP 1313378   | A2   | 20030528 | EP 2001-971930  | 20010820 |
|      | R:   | AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR   |          |                 |          |
|      | BR 2001013390  | A  | 20030729 | BR 2001-13390   | 20010820 |
|      | US 2003202992  | A1   | 20031030 | US 2003-437347  | 20030513 |
| PRAI | US 2000-227117P  | P  | 20000922 |                 |          |
|      | US 2001-821499   | A3   | 20010329 |                 |          |
|      | WO 2001-EP9579   | W  | 20010820 |                 |          |
| AB   | Compsns. and methods that stimulate body protein synthesis and can improve muscle mass maintenance and recovery are provided. The compn. comprises (i) a protein source which provides at least about 8% <b>total calories</b> of the compn. and which includes at least about 50% by wt. of whey protein; (ii) a lipid source having an <b>omega 3:6 fatty acid ratio</b> of about 5:1 to about 10:1 and which provides at least about 18% <b>total calories</b> of the compn.; (iii) a carbohydrate source; and (iv) a balanced macronutrient profile comprising at least vitamin E and vitamin C. |  |          |                 |          |

L11 ANSWER 4 OF 27 CAPLUS COPYRIGHT 2004 ACS on STN  
AN 2002:157504 CAPLUS  
DN 136:182880  
TI Nutritional composition with reduced satiety induction for treatment of appetite disorders and other illnesses  
IN Fuchs, Eileen C.; Garcia-Rodenas, Clara L.; Guigoz, Yves; Leathwood, Peter; Reiffers-Magnani, Kristel; Mallangi, Chandrasekhara R.; Turini, Marco; Anantharaman, Helen Gillian  
PA Societe des Produits Nestle S.A., Switz.  
SO PCT Int. Appl., 20 pp.  
CODEN: PIXXD2

DT Patent  
LA English  
FAN.CNT 2

|    | PATENT NO.    | KIND  | DATE     | APPLICATION NO. | DATE     |
|----|---------------|---|----------|-----------------|----------|
| PI | WO 2002015719 | A2  | 20020228 | WO 2001-EP9578  | 20010820 |
|    | WO 2002015719 | A3  | 20020530 |                 |          |
|    | W:            | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, |          |                 |          |

PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG,  
 UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM  
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,  
 DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,  
 BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 2002044988 A1 20020418 US 2001-821498 20010328  
 US 2002044957 A1 20020418 US 2001-821499 20010329  
 US 6592863 B2 20030715  
 AU 2001095488 A5 20020304 AU 2001-95488 20010820  
 EP 1313376 A2 20030528 EP 2001-976116 20010820

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
 IE, SI, LT, LV, FI, RO, MK, CY, AL, TR

BR 2001013367 A 20030729 BR 2001-13367 20010820  
 US 2003202992 A1 20031030 US 2003-437347 20030513

PRAI US 2000-227117P P 20000822  
 US 2001-821499 A3 20010329  
 WO 2001-EP9578 W 20010820

AB A compn. is described for a nutritional supplement for convalescing patients recovering from illness or surgery, those with limited appetite such as the elderly, children or anorexic patients, or those who have impaired ability to digest other sources of protein such as persons having chronic gastritis who have a reduced gastric pepsin digestion. The supplement comprises: (i) a protein source which provides at least about 8% **total calories** of the compn. and which includes at least about 50% by wt. whey protein; (ii) a lipid source having an **omega 3:6 fatty acid ratio** of about 5:1 to about 10:1 and which provides at least about 18% **total calories** of the compn.; (iii) a carbohydrate source; and (iv) a balanced macronutrient profile comprising at least vitamin E and vitamin C. The supplement has reduced capacity to induce satiety. Also disclosed are a method of prodn. of the compn.; use of the compn. in the manuf. of a functional food or medicament; and a method of treatment which comprises administering an effective amt. of the compn.

L11 ANSWER 5 OF 27 CAPLUS COPYRIGHT 2004 ACS on STN

AN 2002:973253 CAPLUS

DN 138:204223

TI Effects of dietary fat levels on lipid parameters and eicosanoids production of rats under fixed N-6/N-3 and P/S **fatty acid ratios**

AU Lee, Joon Ho; Ikeda, Ikuo; Sugano, Michihiro

CS Department of Consumer's Life Information, Chungnam National University, Taejon, 305-764, S. Korea

SO Nutritional Sciences (2002), 5(4), 184-189

CODEN: NSUCC5; ISSN: 1229-232X

PB Korean Nutrition Society

DT Journal

LA English

AB The effects of dietary fat levels on lipid metab. under fixed P/S (1.3) and n-6/n-3 (5.1) **fatty acid ratios** were examd. in rats using palm oil, soybean oil and perilla oil. These ratios correspond to the recommended compn. of dietary fat for humans. The range of dietary fat levels was 5-20% by wt. (11.8-39.3% of **total energy**). The levels of dietary fat did not influence the concns. of serum and liver cholesterol, whereas the level of triglycerides was gradually elevated with increasing levels of dietary fat, esp. in the liver. The fatty acid compn. of tissue phosphatidylcholine seemed to vary with the different levels of fat. The ratio of linoleic acid to arachidonic acid was increased more significantly in the heart than in the liver. In adipose tissue total lipids, the percentages of satd. and monounsatd. fatty acids decreased, whereas the percentage of polyunsatd. fatty acid increased, with increasing dietary fat levels. In addn., though the level of aortic prostacyclin was not uniformly affected by increasing dietary fat levels,

thromboxane A2 prodn. by platelets tended to increase with higher levels of dietary fat, suggesting an increased risk of thrombosis in this situation. Thus, even though dietary fat may have desirable compns. of fatty acids, these excessive consumption can produce unfavorable metabolic responses.

RE.CNT 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

- L11 ANSWER 6 OF 27 MEDLINE on STN  
AN 2003009092 MEDLINE  
DN 22403316 PubMed ID: 12514937  
TI Non-obese hyperlipidemic Asian northern Indian males have adverse anthropometric profile.  
AU Misra A; Athiko D; Sharma R; Pandey R M; Khanna N  
CS Department of Medicine, All India Institute of Medical Sciences, New Delhi, India.. anoopmisra@hotmail.com  
SO NUTRITION, METABOLISM, AND CARDIOVASCULAR DISEASES, (2002 Aug) 12 (4) 178-83.  
Journal code: 9111474. ISSN: 0939-4753.  
CY Italy  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 200304  
ED Entered STN: 20030108  
Last Updated on STN: 20030419  
Entered Medline: 20030418  
AB BACKGROUND AND AIMS: Hyperlipidemia is commonly ascribed to obesity. We studied the association of anthropometric profile and nutrient intake with hyperlipidemia in non-obese Asian Indian males. METHODS AND RESULTS: In a case-control study, non-diabetic, non-obese males with body mass index (BMI) < 25 Kg/m<sup>2</sup> having primary hyperlipidemia (n = 50) were compared with healthy normolipidemic males (BMI < 25 Kg/m<sup>2</sup>, n = 50). In this study, BMI (p < 0.001), waist circumference (WC) (p < 0.001), waist/hip ratio (p < 0.01), skinfolds (p < 0.001), sum of four skinfolds (p < 0.001), and percentage of body fat (%BF) (p < 0.001) were significantly higher in hyperlipidemic subjects as compared to normolipidemic controls. High %BF (> 25%) was observed in 26% of hyperlipidemic subjects and in 8% normolipidemic controls (p < 0.01). Using analysis of covariance (after adjusting for BMI), WC (p < 0.001), %BF (p < 0.01) and %BF/BMI ratio (p < 0.01) were significantly higher in the hyperlipidemic subjects. Intakes of **total calories**, total fat, saturated fat, carbohydrates, n-3 and n-6 **fatty acids**, dietary fiber, vitamin E and n-6/n-3 **fatty acids ratio** were statistically comparable between the two groups. In hyperlipidemic subjects biceps skinfold correlated negatively to levels of high-density lipoprotein cholesterol (r = -0.28, p < 0.05) and serum triglycerides correlated positively to intakes of carbohydrate (r = 0.31, p < 0.05), and dietary **n-3 fatty acids** (r = 0.34, p < 0.05). CONCLUSIONS: Hyperlipidemic Asian Indian males, defined as "non-obese" based on BMI, had adverse profile of anthropometric parameters and excess %BF as compared to normolipidemic males. Therefore, while dealing with hyperlipidemic Asian Indians, physicians should consider anthropometric parameters (WC), %BF, and %BF/BMI ratio in addition to BMI in the clinical assessment.
- L11 ANSWER 7 OF 27 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 1  
AN 2002:176012 CAPLUS  
DN 137:278479  
TI Nutritional Evaluation of Japanese Take-out Lunches Compared with Western-style Fast Foods Supplied in Japan  
AU Kamei, Masaharu; Ki, Masami; Kawagoshi, Masako; Kawai, Nobuko  
CS Department of Food Science and Nutrition, Osaka City Institute of Public

Health and Environmental Sciences, Tennoji-ku, Osaka, 543-0026, Japan  
SO Journal of Food Composition and Analysis (2002), 15(1), 35-45  
CODEN: JFCAEE; ISSN: 0889-1575  
PB Elsevier Science Ltd.  
DT Journal  
LA English  
AB Take-out lunches and fast foods supplied in Japan were sepd. into 9 groups based on main dishes and their nutritional contents were compared. Among the groups, group A which contained raw, grilled or boiled fish and its deriv. (AX) were considered to be traditional-type Japanese diets. Group B and C contained fried fish and meats as the main dish, resp., and their derivs. BX, CX were the hybrid of the 2 types mentioned above. Group E that included hamburger sets and pizzas was regarded as Western-style fast foods. A and AX contained suitable levels of **total energy** and optimum proportions of fat energy **ratio**, polyunsatd. fatty acids/satd. **fatty acids** (P/S) and **n -6 fatty acids/n -3 fatty acids** (n -6/n -3). In comparison, E showed high levels of fat energy ratio and extremely low value in P/S caused by high levels of satd. fatty acids, which caused significantly high scores in both atherogenic and thrombogenic indexes. B, C and their derivs. also scored high in **total energy**, fat energy **ratio** and had a higher tendency of **n -6/n -3**. These findings indicated that take-out lunches classified into traditional Japanese style (Group A and AX) were relatively good diets regarding **total energy**, fat energy ratio and lipid-related proportions, resp.

RE.CNT 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 8 OF 27 FSTA COPYRIGHT 2004 IFIS on STN  
AN 2002:S0232 FSTA  
TI Effects of RN genotype and silage feed on fat content and fatty acid composition of fresh and cooked pork loin.  
AU Johansson, L.; Lundstrom, K.; Jonsall, A.  
CS Dep. of Domestic Sci., Uppsala Univ., S-752 37 Uppsala, Sweden. Tel. +46-18-471-2500. Fax +46-18-471-2321. E-mail l.johansson(a)ihv.uu.se  
SO Meat Science, (2002), 60 (1) 17-24, 21 ref.  
ISSN: 0309-1740  
DT Journal  
LA English  
AB Effects of red clover silage (RCS) in feeds on intramuscular fat content and fatty acid composition of loin samples from gilts and castrates of Hampshire swine crosses (with Swedish Landrace and Swedish Yorkshire blood) without or with the RN.sup.- allele were evaluated. Fat content and fatty acid profiles of cooked pork (final core temp. 68.degree.C) were also determined. Each of 9 litters was halved and one half, at initial wt. of approx. 30 kg, was fed conventional feeds during the entire rearing period. The other half was fed conventional feeds with supplementary RCS at 10% of **total energy** intake for .gtoreq.1 month preslaughter (**total energy** level in diets of silage-fed pigs was 2% lower than that in rations of conventionally fed animals). Slaughter was at live wt. of approx. 108 kg. Pigs were classified for genotype based on residual glycogen in longissimus dorsi muscles (pigs with >40 .mu.mol/g wet wt. were deemed carriers (RN.sup.-/rn.sup.-), whereas others were deemed to be non-carriers (rn.sup.-/rn.sup.-)). Pigs fed RCS averaged 11.8 days older at slaughter than controls and were considerably leaner (meat plus bone percentage in hams averaged 81.5 vs. 79.5 in controls). Fatty acid profiles were significantly affected by dietary RCS. Raw pork from RCS-fed animals contained less intramuscular fat and lower proportions of saturated and monounsaturated fatty acids (with concomitantly increased proportions of PUFA). Cooked pork from RCS-fed pigs contained higher **proportions**

of .omega.3 fatty acids than that from control-fed pigs. The ratio of .omega.6 to .omega.3 fatty acids was low in both raw and cooked pork from RCS-fed pigs. Protein contents of raw loins from RN.sup.- carriers was lower than that of loins from non-carriers and was unaffected by sex or feed. An interaction between genotype and sex was observed for intramuscular fat, gilts from the non-carrier group having lower levels than all other groups.

L11 ANSWER 9 OF 27 FSTA COPYRIGHT 2004 IFIS on STN  
AN 2001(07):G0377 FSTA  
TI High lipid diet.  
IN Turini, M.; Roessle, C.; Breuille, D.; Crozier-Willi, G.; Finot, P. A.; Richelle, M.; Dutot, G.; Obled, C.  
PA Societe des Produits Nestle SA; France, Institut National de la Recherche Agronomique; Nestle, 1800 Vevey, Switzerland  
SO European Patent Application, (2001)  
PI EP 1090636 A1  
PRAI EP 1999-118173 19990913  
DT Patent  
LA English  
AB A product for use as a medicament or a nutritional product comprising .gtoreq.1 lipid is described, in which the lipid provides .gtoreq.35% of **total energy** of the product. A preferred embodiment comprises an **n-6/n-3 fatty acid ratio** of approx. 2:1 to 7:1. In addition, a method for preparation of the product is described, together with use of the product.

L11 ANSWER 10 OF 27 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 2  
AN 2001:705967 CAPLUS  
DN 135:357300  
TI Dietary supplementation of **n-3 fatty acids** and hydroperoxide levels in rat retinas  
AU Wang, Jin-Ye; Saito, Morio  
CS Division of Food Science, The National Institute of Health and Nutrition, Tokyo, 162-8636, Japan  
SO Free Radical Research (2001), 35(4), 367-375  
CODEN: FRARER; ISSN: 1071-5762  
PB Harwood Academic Publishers  
DT Journal  
LA English  
AB Docosahexaenoic acid (DHA) plays an important role in visual and neural development in mammals. In the present study, effect of dietary supplementation with **n-3 fatty acids**, primarily docosahexaenoic acid (DHA) with high purity, on the fatty acid compn. of photoreceptor cells of young rats (fed from 4 wk) was investigated. DHA in rod outer segment (ROS) membranes was significantly increased in the group of high DHA feeding (9.69% **total energy**). Other **n-3 fatty acids** (.alpha.-linolenic acid (ALA) and eicosapentaenoic acid (EPA)) included in the diets with DHA (0.95%.apprx.5.63% **total energy**) also significantly increased the proportion of DHA compared with the linoleic acid diet groups. However, the **proportions** of arachidonic acid (ARA) and other long chain **n-6 fatty acids** (22:4n6 and 22:5n6) were suppressed in these **n-3 fatty acids**-fed groups. Phospholipid hydroperoxides in ROS membranes were detd. using a highly sensitive anal. technique, chemiluminescence-high performance liq. chromatog. (CL-HPLC). There was no increasing tendency in the hydroperoxide levels of ROS membranes contg. high content of DHA, and phosphatidylethanolamine hydroperoxide (PEOOH) was much lower than phosphatidylcholine hydroperoxide (PCOOH) under normal light conditions, which implies that DHA supplementation does not much affect

the peroxidizability of ROS membranes in vivo. But UV irradiation on separated ROS membranes accelerated the formation of phospholipid hydroperoxides in high DHA feeding rats, and PEOOH was produced more efficiently than PCOOH in vitro.

RE.CNT 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 11 OF 27 CAPLUS COPYRIGHT 2004 ACS on STN  
AN 2002:337478 CAPLUS  
DN 136:385385  
TI Effects of .omega.-3 and CLA on nutritional traits of foods of animal origin  
AU Antonigiovanni, M.; Buccioni, A.; Mele, M.  
CS Dipartimento di Scienze Zootecniche, Universita di Firenze, Florence, Italy  
SO Progress in Nutrition (2001), 3(2), 46-51  
CODEN: PNRUAT; ISSN: 1129-8723  
PB Casa Editrice Mattioli  
DT Journal; General Review  
LA English  
AB A review. The major components of the fatty fraction of foods of animal origin are reviewed: saturated fatty acids (SFA), monounsaturated fatty acids (MUFA), .omega.-3 and .omega.-6 polyunsaturated fatty acids (n-3 and n-6 PUFA), conjugated linoleic acid isomers (CLA). The biological and/or pathological actions of each component are synthetically described and the following indications are given: i) SFA should not be higher than 10% of total energy intake; ii) trans MUFA from hydrogenation processing must be avoided because harmful, whereas vaccenic acid (C18:1 t11), which is naturally formed within the rumen and is consequently present in dairy products does not seem to be of harm; iii) n-3 PUFA are preventing factors of either coronary heart disease or some kinds of tumors; iv) n-6 PUFA are modulators of vascular functions and precursors of some isomers of prostaglandins; v) n-6/n-3 ratio must be as close to 1 as possible; vi) CLA exerts several functions essential for preventing disorders of lipid metabolism, of coronary heart disease, of some tumors and of diabetes. It is concluded that the diet of the average Western citizen is quite often unbalanced and must be re-conducted to the recommended allowances, even by means of animal nutrition.

RE.CNT 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 12 OF 27 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 3  
AN 2000:769078 CAPLUS  
DN 133:340229  
TI Method of and nutritional and pharmaceutical compositions for reduction of hyperinsulinemia using activated omega 3 and 6 essential fatty acids  
IN Sears, Barry D.  
PA Eicotech Corporation, USA  
SO U.S., 14 pp., Cont.-in-part of U.S. Ser. No. 771,058, abandoned.  
CODEN: USXXAM  
DT Patent  
LA English  
FAN.CNT 2

|      | PATENT NO.     | KIND | DATE     | APPLICATION NO. | DATE     |
|------|----------------|------|----------|-----------------|----------|
| PI   | US 6140304     | A    | 20001031 | US 1992-996797  | 19921224 |
|      | US 5059622     | A    | 19911022 | US 1990-539384  | 19900618 |
| PRAI | US 1988-251139 | B2   | 19880928 |                 |          |
|      | US 1989-400288 | B3   | 19890829 |                 |          |
|      | US 1990-539384 | A2   | 19900618 |                 |          |



US 1991-771058 B2 19911002  
US 1991-771402 B2 19911002

AB A method and nutritional and pharmaceutical compns. are provided for the redn. of hyperinsulinemia and the improvement of disease conditions related to hyperinsulinemia by administering a nutritional compn. to modify hormonal response. A method for the redn. of hyperinsulinemia in a person by the control of insulin and glucagon levels comprises: (a) providing for the oral introduction into the person of a therapeutic, effective amt. of a solid food product having a **total calorie** value, which solid food product comprises: (i) a protein source of high biol. value having about 20 to 40% of **total calorie** value; (ii) a carbohydrate source composed primarily of a low glycemic index having about 30 to 50% of **total calorie** value; (iii) a fat source having about 20 to 40% of **total calorie** value wherein the fat source comprises a combination of activated **Omega 6** essential **fatty acids** and activated **Omega 3** essential **fatty acids** in a ratio of **Omega 3** acids to **Omega 6** acids of greater than 2:1; and (iv) the protein source to carbohydrate source ratio greater than 0.4:1, but less than 1:1, to control the insulin and glucagon levels of the person. A soft gelatin capsule contg. 40 mg. of refined borage oil, 333 mg of refined marine oil, and 120 mg of olive oil contains 80 mg of eicosapentaenoic acid and 10 mg of .gamma. linolenic acid. This soft gelatin capsule can be given orally for the redn. of hyperinsulinemia.

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 13 OF 27 CAPLUS COPYRIGHT 2004 ACS on STN  
AN 1998:625075 CAPLUS  
DN 129:330079  
TI Changes in the intake of fatty acid and vitamin E in Osaka citizens during past 50 years after the 2nd World War  
AU Hara, Tokuko; Mino, Makoto  
CS Department of Food Science, Osaka Shoin Women's College, Osaka-fu, Higashiosaka-shi, Hishiya, Nishi, 577-8550, Japan  
SO Bitamin (1998), 72(9), 437-442  
CODEN: BTMNA7; ISSN: 0006-386X  
PB Nippon Bitamin Gakkai  
DT Journal  
LA Japanese  
AB Changes in the intake of fat, polyunsatd. fatty acid (PUFA), vitamin E, and the E/PUFA ratio were investigated using data from nutritional surveys of Osaka citizens during the past 50 yr. The total fat intake was <10% of **total energy** intake in 1946 and increased 5.5-fold during the past 50 yr. The increase in satd. fatty acids, monounsatd. fatty acids, and PUFA were 6.3, 9.1, and 3.7-fold, resp. The **fatty acid n-6/n-3 ratio** was almost 4:1 throughout the period. The daily vitamin E intake of 4.3 mg in 1946 gradually increased during the next 30 yr and reached the max. of 8.7 mg in 1975, and then remained almost const. for subsequent 20 yr. The E/PUFA ratio decreased from 1.07 in 1946 to 0.55 after 1994. These findings should be considered in the evaluation of vitamin E dietary requirements, although the total vitamin E intake recently increased to the recommended level of 8 mg.

L11 ANSWER 14 OF 27 MEDLINE on STN  
AN 1998253535 MEDLINE  
DN 98253535 PubMed ID: 9591310  
TI Effects of a newly developed fat emulsion containing eicosapentaenoic acid and docosahexaenoic acid on fatty acid profiles in rats.  
AU Tashiro T; Yamamori H; Hayashi N; Sugiura T; Takagi K; Furukawa K; Nakajima N; Itoh I; Wakabayashi T; Ohba S; Akahane N

CS First Department of Surgery, Chiba Univeristy Medical School, Japan.  
 SO NUTRITION, (1998 Apr) 14 (4) 372-5.  
 Journal code: 8802712. ISSN: 0899-9007.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 199807  
 ED Entered STN: 19980723  
 Last Updated on STN: 19980723  
 Entered Medline: 19980710

AB A new fat emulsion of symmetrical triacylglycerols, containing only eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA) was developed. The effects of this preparation on serum and liver fatty acid composition were investigated. Male Sprague-Dawley rats were fed a fat-free oral diet for 2 wk and were then divided into two groups. Seven rats were infused for 7 d with 1 mL of the new fat emulsion, which accounted for 1% of **total caloric** intake. The other 7 rats received saline. Both groups of rats received a fat-free diet during the infusion. EPA and DHA decreased to one third to one fifth of normal value after 2 wk on a fat-free diet. EPA and DHA of serum and liver remained at a low level in the control group throughout the study. But in the rats administered with the new fat emulsion, EPA and DHA increased rapidly and exceeded normal values in both serum and liver after 7 d of infusion. Decreased arachidonic acid with increased 20:3n-9 resulted in the rise of the triene/tetraene (T/T) **ratio** to greater than 0.4, indicating an **n-6** essential fatty acid deficiency in the control rats. In the group administered the new fat emulsion, however, 20:3n-9 and total content of monounsaturated fatty acids decreased significantly, and the T/T ratio was less than 0.4 in both serum and liver. In conclusion, the intravenous use of a newly developed fat emulsion containing EPA and DHA is useful in improving the EPA and DHA status of serum and liver without any harmful effects. Beneficial effects are expected in the modulation of inflammatory and stress response.

L11 ANSWER 15 OF 27 FSTA COPYRIGHT 2004 IFIS on STN  
 AN 1999(04):N0206 FSTA  
 TI Fat, **n-6** and **n-3 fatty acid** intake in rheumatoid arthritis and osteoarthritis patients.  
 AU Volker, D. H.; Major, G. A.; Garg, M. L.  
 CS Correspondence (Reprint) address, M. L. Garg, Discipline of Nutr. & Dietetics, Fac. of Med. & Health Sci., Univ. of Newcastle, Callaghan, NSW 2308, Australia  
 SO Australian Journal of Nutrition and Dietetics, (1998), 55 (2) 69-73, 42 ref.  
 ISSN: 1032-1322  
 DT Journal  
 LA English  
 AB A detailed dietary survey into the extent of variation in intakes of fat and **n-6/n-3** polyunsaturated **fatty acids** by sufferers from rheumatoid arthritis (RA; 32 female and 20 male) and osteoarthritis (OA; 38 female and 12 male) was conducted between Nov. 1995 and Jan. 1996, in New South Wales, Australia. Participants completed a semi-quantitative food frequency questionnaire covering intakes of 212 food and drink items, food preparation practices and nutritional beliefs and anxieties. Results were analysed for nutrient intakes using a nutrient database derived from published values and UK food tables. There was individual variation in fat intake of participants from both groups, but inter-group (RA vs. OA) differences were not significant. Fat as percentage of **total energy** was higher in both groups (39.8% for RA and 37.3% for OA sufferers) than the recommended level of 30%. PUFA intake varied greatly between individuals in both groups; daily intakes of **n-6** and **n-3** PUFA were 2.5-43.4 and 0.6-4.7 g, respectively, while **n-6** to **n-**

**3 ratio** varied from 2.3 to 12.7 (mean 7:1). The **n-6 to n-3 PUFA ratio**

could be reduced by inclusion of canola oil and monounsaturated spreads and by reducing intake of fats containing n-6 PUFA. A community-based strategy to increase n-3 to n-6 content of vegetable oils may prove more effective than encouraging increased consumption of fish.

L11 ANSWER 16 OF 27 MEDLINE on STN  
AN 2001353587 MEDLINE  
DN 21144504 PubMed ID: 11248877  
TI Effects of preterm infant formula supplementation with alpha-linolenic acid with a linoleate/alpha-linolenate ratio of 6: a multicentric study.  
AU Billeaud C; Bougle D; Sarda P; Combe N; Mazette S; Babin F; Entressangles B; Descomps B; Nouvelot A; Mendy F  
CS Departementes de Neonatologie: Universite Bordeaux II, Paris, France.  
SO EUROPEAN JOURNAL OF CLINICAL NUTRITION, (1997 Aug) 51 (8) 520-6.  
Journal code: 8804070. ISSN: 0954-3007.  
CY England: United Kingdom  
DT (CLINICAL TRIAL)  
Journal; Article; (JOURNAL ARTICLE)  
(MULTICENTER STUDY)  
(RANDOMIZED CONTROLLED TRIAL)  
LA English  
FS Priority Journals  
EM 200106  
ED Entered STN: 20010625  
Last Updated on STN: 20010625  
Entered Medline: 20010621  
AB OBJECTIVE: To investigate the effects of a milk formula supplemented with a alpha-linolenic acid (ALA) (18:2 n-6/18:3 n-3 ratio near 6/1) on plasma and red blood cell (RBC) fatty acids (FAs) in premature infants and compare with a non supplemented formula (18:2 n-6/18:3 n-3 = 22/1). DESIGN AND SUBJECTS: Infants of mothers who elected not to breast-feed were randomly assigned to either a high alpha linolenic formula (HLF: n = 31) group or a low alpha-linolenic formula (LLF: n = 32) control group. Infants fed human milk (HM: n = 25) were enrolled concurrently as a reference group. Anthropometric and biological measurements were made after two days (D2) and 15 d (D15) of enteral feeding and at the 37th week (W37) of postconceptual age. In HLF, the 18:3 n-3 content was 1.95% of total FAs (0.77% of **total energy**) and the 18:2 n-6/18:3 n-3 ratio was near 6/1. In LLF, the 18:3 n-3 content was 0.55% of total FAs (0.22% of **total energy**) and the 18:2 n-6/18:3 n-3 ratio was 22/1. RESULTS: ALA supplementation had minimal effect on the n-6 series, did not alter the anthropometric data and confirmed the conversion of ALA into docosahexaenoic acid (DHA). Throughout the study, it maintained, the RBC membrane DHA values within the confidence interval of those obtained in the HM group. Such was not the case with LLF  
CONCLUSION: alpha-linolenic acid supplementation (from Rapeseed oil and in a 18:2 n-6/18:3 n-3 ratio = 6) in premature infant formula can contribute efficiently to the maintenance of the n-3 status in the premature newborns.  
  
L11 ANSWER 17 OF 27 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 4  
AN 1997:413445 CAPLUS  
DN 127:94632  
TI Inhibitory effect of a sausage containing soy protein isolate on increase in serum total cholesterol level induced by high fat diet in adult male subjects  
AU Katsuda, Shinichiro; Yamada, Ryoji; Yoshiga, Atsuko; Tsuji, Keisuke  
CS Res. Dev. Cent., Nippon Meat Packers, Inc., Tsukuba, 300-26, Japan  
SO Nippon Shokuhin Kagaku Kogaku Kaishi (1997), 44(6), 418-423  
CODEN: NSKKEF; ISSN: 1341-027X

PB Nippon Shokuhin Kagaku Kogakkai  
DT Journal  
LA Japanese

AB We examd. inhibitory effects of a sausage contg. soy protein isolate on increase in serum lipid levels in 13 adult male subjects (27-62 yr old) induced by high fat diet with 110% of **total energy** (25-30% of fat energy ratio) to the safe and adequate daily intake for each subject. Serum total cholesterol (p <0.01), free cholesterol (p <0.01), triglyceride (p <0.01) and phospholipid (p <0.05) levels were significantly decreased and HDL-cholesterol level (p <0.001) was significantly increased by the intake of the sausage (9.9 g/person/day) contg. soy protein isolate (about 9.9 g/135 g) added to daily conventional high fat meals for 2 wk. Daily dietary intakes of animal fat, plant fat, satd., polyunsatd., **.omega.-3** and **.omega.-6 fatty acids**, cholesterol, animal protein, plant protein, carbohydrate and **total energy** and **ratios** of polyunsatd. to satd. **fatty acids** (P/S) and **.omega.-6** to **.omega.-3 fatty acids** (**.omega.-6/.omega.-3**) were not significantly altered during test (sausage intake) period for 2 wk and two control periods fed high fat diets for 1 wk before and after the test period (p >0.05). There were no clin. findings and no remarkable change in body wt. by the intake of the sausage. These results suggest that a sausage contg. soy protein isolate may suppress the increase in serum total cholesterol and other lipid levels and the decrease in HDL-cholesterol level induced by high fat diet in adult male subjects.

L11 ANSWER 18 OF 27 FSTA COPYRIGHT 2004 IFIS on STN

AN 1998(08):R0608 FSTA

TI Traditional fish intake and fatty acid composition in fish consuming and non-fish consuming populations.

AU Gandham Bulliyya; Reddy, P. C.; Reddanna, P.

CS Reg. Med. Res. Cent., (RMRC), Indian Council of Med. Res. (ICMR), Chandrasekharapur, Bhubaneswar 751 016, India. Tel. +91-0674-440391. Fax +91-0674-440974

SO Asia Pacific Journal of Clinical Nutrition, (1997), 6 (4) 230-234, 19 ref. ISSN: 0964-7058

DT Journal

LA English

SL Chinese

AB To evaluate the benefits of habitual marine fish intake, the relationship between fatty acid composition of serum phospholipids and dietary patterns were investigated. Dietary intake and serum fatty acid concn. were measured in healthy subjects from fish consuming and non-fish consuming populations [of the coastal Nellore district, India]. Amongst fish consumers, the intake of **total energy** (P < 0.01) and carbohydrate (P < 0.05) was significantly lower and protein intake higher than in non-fish consumers. The mean percentages of saturated and monounsaturated fatty acids did not show significant variation. However, in the **.omega.-6 fatty acid** series, the **percent** of linoleic acid, 22:4 **.omega.-6** and 22:5 **.omega.-6** was significantly lower in fish consumers, whereas dihomo-gamma linolenic acid was higher than in the non-fish consumers. The **percentage** of **.omega.-3 fatty acids** (eicosapentaenoic acid, docosapentaenoic acid and docosahexaenoic acid) in fish consumers were significantly greater (P < 0.01) than those in non-fish consumers, probably as a result of differences in fish intake. These differences in fatty acid profiles, particularly in the long-chain **.omega.-3** series, are highlighted with the consumption of fish being a possible explanation for differences between fish consuming and non-fish consuming populations.

L11 ANSWER 19 OF 27 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 5

AN 1997:282088 CAPLUS  
 DN 127:16975  
 TI Dietary lipids and incidence of cerebral infarction in a Japanese rural community  
 AU Seino, Fukue; Date, Chigusa; Nakayama, Takeo; Yoshiike, Nobuo; Yokoyama, Tetsuji; Yamaguchi, Momoko; Tanaka, Heizo  
 CS Dep. Epidemiol. Med. Res. Inst., Tokyo Med. Dental Univ., Tokyo, 101, Japan  
 SO Journal of Nutritional Science and Vitaminology (1997), 43(1), 83-99  
 CODEN: JNSVA5; ISSN: 0301-4800  
 PB Center for Academic Publications Japan  
 DT Journal  
 LA English  
 AB An assessment of the relationship between dietary lipids and incidence of cerebral infarction was made in a Japanese rural population. Out of the members, 954 men and 1329 women who were initially free of stroke completed a semiquant. food frequency questionnaire in 1977, and were then subjected to a follow-up for 15.5 yr. The occurrence of stroke was detd. by the annual follow-up examn. and registry. Dietary lipid was adjusted for **total energy** or fat intake by the residual method. Sex- and age-stratified and blood pressure- and atrial fibrillation-adjusted relative risk for cerebral infarction was estd. by the Cox proportional hazard model. There were 75 new cases of cerebral infarction during the observation period. The relative risk for cerebral infarction was less than one in the highest quartile level of total fat, satd. fatty acids (S), Keys scored and westernized dietary pattern: 0.68-0.94. It ranged between 1.36 and 1.57 in the highest level of polyunsatd. (P), n-3 and n-6 **fatty acids**, and P/S **ratio**. This study suggests the possibility that the traditional Japanese diet, very low fat intake, was likely to increase the risk of stroke through the low level of serum cholesterol as an intermediary factor.

RE.CNT 43 THERE ARE 43 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 20 OF 27 CAPLUS COPYRIGHT 2004 ACS on STN  
 AN 1997:57362 CAPLUS  
 DN 126:85912  
 TI Effect of **n-3 fatty acid** containing fat emulsion on endotoxin translocation in burned rats fed by total parenteral nutrition  
 AU Hayashi, Naganori; Tashiro, Tsuguhiko; Yamamori, Hideo; Morishima, Yuichi; Otsubo, Yoshihisa; Sugiura, Toshiyuki; Furukawa, Katsunori; Itabashi, Terumi; Sano, Wataru; Toyoda, Yasuyoshi; Nitta, Hiroshi; Nakajima, Nobuyuki; Ito, Isao  
 CS First Dept. of Surgery, Chiba Univ. School of Med., Chiba, 260, Japan  
 SO Geka to Taisha, Eiyo (1996), 30(6), 375-382  
 CODEN: GTEIDA; ISSN: 0389-5564  
 PB Nippon Geka Taisha Eiyo Gakkai  
 DT Journal  
 LA Japanese  
 AB The purpose of this study was to investigate the effect of **n-3 fatty acid** contg. fat emulsion on endotoxin translocation in burned rats fed by total parenteral nutrition (TPN). Male Sprague-Dawley rats (3 wk old) were fed by fat free chow for 2 wk and were divided into 3 TPN groups (250 kcal/kg/day, amino acid 7.8 g/kg/day). Group "C" (n = 11):fat free TPN, Group "N6" (n = 11):TPN with safflower oil emulsion (20% of **total calories**), Group "N3" (n = 11):TPN with safflower oil (19% of **total calories**) and structured EPA and DHA (2:1) emulsion (1% of **total calories**). After 5 days of TPN, each rat was subjected to 20% full-thickness scald burns under satisfactory ether anesthesia. On the second postburn day, animals were sacrificed and the organs were resected aseptically, weighed, and frozen by liq. nitrogen. Endotoxin content in

the liver, spleen and lung was measured by Endospasy. Serum PGE2 was assayed by EIA method. Fatty acid compn. was analyzed by gas liq. chromatog. There was no significant difference in body wt., wet wt. of the small intestine and colon among the groups. T/T **ratio** in group C was significantly higher than in group N6 and group N3. Animals in group C developed deficiency in **n-6 essential fatty acids**. EPA and DHA levels in group N3 increased significantly when compared with group C and group N6. There was no significant difference in serum PGE2 concn. and levels of endotoxin in the liver, spleen and lung among the groups. In conclusion, the administration of **n-3 fatty acid** contg. fat emulsion did not affect the endotoxin translocation in burned rats receiving TPN.

L11 ANSWER 21 OF 27 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1996:572263 CAPLUS

DN 125:246374

TI Effect of **N-3** fat emulsion on **fatty**

**acid** metabolism and cytokine release in burned rats receiving TPN

AU Hayashi, Naganori; Tashiro, Tsuguhiko; Yamamori, Hideo; Takagi, Kazuya; Morishima, Yuichi; Kumano, Yuji; Otsubo, Yoshihisa; Sugiura, Toshiyuki; Furukawa, Katsunori; et al.

CS First Dep. Surgery, Chiba Univ., Chiba, 260, Japan

SO Geka to Taisha, Eiyo (1996), 30(4), 283-290

CODEN: GTEIDA; ISSN: 0389-5564

PB Nippon Geka Taisha Eiyo Gakkai

DT Journal

LA Japanese

AB The purpose of this study was to investigate the effect of **n-3** fat emulsion on **fatty acid** metab. and

cytokine release in burned rats receiving TPN. Male Sprague-Dawley rats (3 wk old) were fed fat free chow for 2 wk and were divided into 3 TPN groups (250 kcal/kg/day, amino acid 7.8 g/kg/day). Group "C" (n = 11): fat free TPN, group "N6" (n=11): TPN with safflower oil emulsion (20% of **total calories**), group "N3" (n=11): TPN with safflower oil (19% of **total calories**) and structured EPA and DHA (2:1) emulsion (1% of **total calories**). After 5 days

of TPN, rats were subjected to 20% full-thickness scald burns. On the second postburn day, serum TNF.alpha., PGE2 and TXB2 were analyzed by EIA. Serum fatty acid compn. was also studied. The mean TNF.alpha. concn. was significantly higher in group N6 than in group N3 (p<0.05). There was no significant difference in mean PGE2, TXB2 among the groups. Animals in group C became deficient in **n-6 essential**

**fatty acids**. The levels of EPA and DHA in group N3 were increased significantly when compared with group C and group N6 (p<0.001, p<0.001). The **ratio** of EPA to AA in group **N3** was significantly higher than in group C and group N6 (p<0.05, p<0.05). In conclusion, safflower oil emulsion increased TNF.alpha., and addn. of **n-3** new fat emulsion reduced this cytokine level. No significant changes were obsd. in eicosanoids. Supplementation of a new fat emulsion (only 1% of **total calories**) had beneficial effects on host defense in burned rats.

L11 ANSWER 22 OF 27 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1994:76267 CAPLUS

DN 120:76267

TI Effect of dietary polyunsaturated fatty acids on contraction and relaxation of rat femoral resistance arteries

AU MacLeod, Donald C.; Heagerty, Anthony M.; Bund, Stuart J.; Lawal, Tunde S.; Riemersma, Rudolph A.

CS Cardiovasc. Res. Unit, Univ. Edinburgh, Edinburgh, UK

SO Journal of Cardiovascular Pharmacology (1994), 23(1), 92-8

CODEN: JCPCDT; ISSN: 0160-2446

DT Journal

LA English  
AB The authors investigated the effects of dietary polyunsatd. fatty acids (PUFA) derived from fish oil (n-3 PUFA) and plant seed oil (n-6 PUFA), in amts. relevant to human consumption, on the .alpha.1-adrenoceptor-mediated contractile responses of isolated rat resistance arteries. Rats were fed semisynthetic diets, deriving 40% of **total calories** from fat. The control diet, which had sufficient linoleic acid to prevent essential fatty acid deficiency, had a polyunsatd/satd. fatty acid (P/S) ratio of 0.3. The n-3 PUFA were given as a daily oral supplement of fish oil. For the n-6 PUFA diet, the **proportion** of linoleic acid in the diet was increased to obtain a P/S ratio of 2.0. Diets were administered for 8 wk. At the end of the feeding period, second-order branches of the femoral artery (<300-.mu.m diam.) were mounted in pairs in an isometric myograph, and responses to norepinephrine (NE) 3 nM-10 .mu.M with the addn. of yohimbine 1 .mu.M and timolol 1 .mu.M were examd. Subsequently, the vessels were preconstricted with NE to 60% of their maximal response and relaxation to acetylcholine 1 nM-0.1 mM was obsd. Dietary n-3 PUFA supplements led to attenuation of the contractile responses of isolated resistance arteries vs. control. The n-6 PUFA diet did not exert this effect although there was a downward trend. Diet did not affect the EC50 values for NE. Neither the n-3 nor n-6 PUFA diet influenced the relaxation responses. The fatty acid compn. of myocardial phospholipid fractions was significantly altered by both diets. Supplementation of a diet relevant to that consumed by humans with a small dose of n-3 PUFA attenuated .alpha.1-adrenoceptor-mediated contractile responses in the rat femoral resistance artery without affecting acetylcholine (ACh)-induced relaxation. The findings may help explain the blood pressure-lowering effects of fish oil.

L11 ANSWER 23 OF 27 MEDLINE on STN  
AN 94017210 MEDLINE  
DN 94017210 PubMed ID: 8411676  
TI Dietary treatment of atherosclerosis.  
AU Itakura H  
CS Division of Clinical Nutrition, National Institute of Health and Nutrition.  
SO NIPPON RINSHO. JAPANESE JOURNAL OF CLINICAL MEDICINE, (1993 Aug) 51 (8) 2086-94.  
Journal code: 0420546. ISSN: 0047-1852.  
CY Japan  
DT Journal; Article; (JOURNAL ARTICLE)  
LA Japanese  
FS Priority Journals  
EM 199311  
ED Entered STN: 19940117  
Last Updated on STN: 19940117  
Entered Medline: 19931116  
AB Dietary treatments for hyperlipidemia, hypertension, diabetes mellitus and obesity are essential for the prevention or management of atherosclerosis. To correct overweight or obesity, restriction of energy intake should be considered. The consumption of fat should be decreased less than 25 percent of **total energy**. The ratio of saturated fatty acid, monounsaturated fatty acid and polyunsaturated fatty acid is recommended as 1:1:1. Intake of oily fish should be included in daily meal. The **ratio of n-6/n-3 polyunsaturated fatty acid** is considered to be beneficial around three or four. Excess intake of simple sugars must be avoided and increase the intake of complex carbohydrate and dietary fibre are recommended.

L11 ANSWER 24 OF 27 FSTA COPYRIGHT 2004 IFIS on STN  
AN 1992(10):G0029 FSTA  
TI Liquid nutritional product.  
IN Behr, S. R.; Craig, L. D.; Garleb, K. A.; Neal, C. S.; Chmura, J. N.;

Anloague, P. S.; Cunningham, M. B.; Sertl, D. C.  
PA Abbott Laboratories; Abbott Laboratories, Abbott Park, IL, USA  
SO United States Patent, (1992)  
PI US 5104677  
PRAI US @@@@-722439 19910627  
DT Patent  
LA English  
AB A liquid nutritional product is described, which comprises a fat and dietary fibre. The dietary fibre system involved contains (by wt.) 5-50% of a soluble and fermentable fibre, e.g. gum arabic, 5-20% of a soluble and nonfermentable fibre, e.g. CMC, and 45-80% of an insoluble and nonfermentable fibre, e.g. oat hull fibre. Of the **total calories** in the product, <10% are from saturated fatty acids and .ltoreq.10% are from polyunsaturated **fatty acids**. (**n-6:n-3 fatty acids ratio** is 2-10). [From En summ.]

L11 ANSWER 25 OF 27 CAPLUS COPYRIGHT 2004 ACS on STN  
AN 1993:6124 CAPLUS  
DN 118:6124  
TI Replacement of butter on bread by rapeseed oil and rapeseed oil-containing margarine: effects on plasma fatty acid composition and serum cholesterol  
AU Seppanen-Laakso, T.; Vanhanen, H.; Laakso, I.; Kohtamaki, H.; Viikari, J.  
CS Dep. Pharm., Helsinki, SF-00170, Finland  
SO British Journal of Nutrition (1992), 68(3), 639-54  
CODEN: BJNUAV; ISSN: 0007-1145  
DT Journal  
LA English  
AB The effects of zero-erucic acid rapeseed oil and rapeseed oil-contg. margarine on plasma fatty acid compn. and serum cholesterol were studied in 43 butter users. Compliance to the substitution was followed by fatty acid anal. of total plasma and plasma phospholipids. The amt. of substitute fats represented, on av., 21% of total fat and 8% of **total energy** intake. Changes in the relative fatty acid compn. or plasma phospholipids indicated further fatty acid metab. and were closely related to the serum cholesterol level. The redn. in satd. fatty acids led to a significant increase in the **proportion** of **n-3** and **n-6** polyunsatd. **fatty acids** (PUFA) with the rapeseed of oil diet, whereas the margarine caused a significant rise in n-6 PUFA only. The increase in the proportions of the 2 PUFA families occurred in accordance with their competitive order, most completely with the rapeseed oil diet. When butter was replaced by rapeseed oil, low-d.-lipoprotein cholesterol decreased by an av. of 9.1% without a redn. in high-d.-lipoprotein cholesterol. During margarine substitution, the redn. was 5.2%, on av. Of the plasma phospholipids, .alpha.-linolenic acid and the linoleic:stearic acid ratio, but not oleic acid, were the components most significantly correlated with serum cholesterol levels or the decrease in these levels. The results show that rapeseed oil can act primarily as a source of essential fatty acids, rather than that of monoenes, in the diet of butter users.

L11 ANSWER 26 OF 27 CAPLUS COPYRIGHT 2004 ACS on STN  
AN 1993:494400 CAPLUS  
DN 119:94400  
TI Change in lipid allowances by a nutritional intervention  
AU Dabadie, H.; Castera, A.; Lacomere, R. P.; Chazan, J. B.; Paccalin, J.  
CS Clin. Ther. Med., Univ. Bordeaux II, Bordeaux, 33076, Fr.  
SO Cahiers de Nutrition et de Dietetique (1992), 27(4), 245-50  
CODEN: CNDQA8; ISSN: 0007-9960  
DT Journal  
LA French  
AB The effect on fat intake of subjects consuming a normal diet was studied by simple modifications of the diet. The daily allotment of 15 g butter



was replaced by 10 g margarine made from sunflower oil and a daily croissant was replaced by a croissant made with sunflower oil. The wt. of fat and the amt. of **total calories** consumed was not changed and the amt. of fat calories consumed increased slightly, but the proportion of polyunsatd. fatty acids consumed increased to the recommended **proportion**, the n-6/n-3 **fatty acid ratio** increased, and the amt. of cholesterol that was consumed decreased.

L11 ANSWER 27 OF 27 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 6  
AN 1992:40239 CAPLUS  
DN 116:40239  
TI Lipid components of traditional Inuit foods and diets of Baffin Island  
AU Kuehleln, Harriet V.; Kubow, Stan; Soueida, Rula  
CS Sch. Diet. Hum. Nutr., McGill Univ., Saint Anne de Bellevue, QC, H9X 1C0, Can.  
SO Journal of Food Composition and Analysis (1991), 4(3), 227-36  
CODEN: JFCAEE; ISSN: 0889-1575  
DT Journal  
LA English  
AB Traditional wildlife foods harvested and consumed by the Inuit resident on the east coast of Baffin Island were analyzed for fat and fatty acid contents. While values for these components in caribou and various species of seals have been reported earlier, this is the first comprehensive report of the major fatty acids in the spectrum of foods consumed by a population resident in the high Arctic. Summary data are presented on fats, energy, and total fatty acid contents in the av. annual diet of adult males and females who consume both traditional Inuit and market foods. While market foods contribute more **total energy**, total fat, and satd. and polyunsatd. fats, the **total energy** as satd. fat is less than 10%. The very low **.omega.-6 to .omega.-3 fatty acid ratios** in the Inuit food dietary profile of 0.26 (women) and 0.29 (men) are the reverse of recently proposed ratios for optimal health. However, since the traditional Inuit diet supported a healthy population supposedly free of cardiovascular disease, the low **.omega.-6 to .omega.-3** dietary fat intake may be appropriate for the Inuit.